

PAPERS READ BEFORE THE SOCIETY FROM FEBRUARY 1890
TO JANUARY 1891.

1890.
Mar. 14. On some celestial photographs taken with a large portrait lens at the Lick Observatory. E. E. Barnard.
 γ *Coronæ Australis*. E. B. Powell.
On the proper motion of Groombridge 1830. W. T. Lynn.
Observations of the variable star S (10) *Sagittæ*. J. E. Gore.
A new class of binary stars. Professor E. C. Pickering.
Observations of Comet 1888 (Barnard, September 2), made at the Sydney Observatory with the 11½-inch equatoreal and filar micrometer. Communicated by H. C. Russell.
On a method of obtaining the error of a chronometer by equal altitudes of two stars on opposite sides of the meridian. Commander A. M. Field.
A simple method of obtaining an approximate solution of Kepler's equation. A. A. Rambaut.
On the parallax of double stars. A. A. Rambaut.
Observations of phenomena of *Jupiter's* satellites at Windsor, New South Wales, in the year 1889. John Tebbutt.
Photograph of the clusters 33 and 34 μ VI. *Persei*. Isaac Roberts.
Suspected variability during short periods in certain stars in *Orion*. Isaac Roberts.
Further note, with a correction, on the spectrum of the Sun-spot of June 1889. Rev. A. L. Cortie.
Some experiments relating to the method of obtaining the coefficient of absorption of the wedge photometer. E. J. Spitta.
Ephemeris for physical observations of *Jupiter*, 1890. A. Marth.
Observations of the Moon made at the Radcliffe Observatory, Oxford, during the year 1889, and a com-

- parison of the results with the tabular places from Hansen's Lunar Tables. E. J. Stone.
- April 11. Fifth Catalogue of micrometrical measures of double stars made at the Temple Observatory, Rugby. G. M. Seabroke, A. P. Smith, and H. P. Highton.
- Discovery of Comet Brooks, 1890. W. R. Brooks.
- Photograph of stars in the region of Tycho's *Nova*. Isaac Roberts.
- A mechanical theory of the solar corona. J. M. Schaeberle.
- On the Nautical Almanac. Lieut.-Gen. J. F. Tennant.
- Note on the apparent star places of the Nautical Almanac. H. H. Turner.
- Note on the Sun-spots of 1889. E. W. Maunder.
- May 9. On the proper motion of three stars. W. T. Lynn.
- Observations of the planets *Victoria* and *Sappho*, made with the Cambridge transit-circle in the year 1889. Communicated by Professor J. C. Adams.
- The apparent projection of stars upon the bright limb of the Moon at occultation, and similar phenomena. George Davidson.
- On the orbit of δ *Cygni*. J. E. Gore.
- Totality of the eclipse of 1889 December 22. Professor D. P. Todd.
- Comparison of the right ascensions of clock stars in the Greenwich Ten-Year Catalogue for 1880 with the Fundamental Catalogues of the American Ephemeris and the Astronomische Gesellschaft. Professor S. Newcomb.
- A revolving diagonal, with combined total reflection and solar prism. W. Schooling.
- Mean areas and heliographic latitudes of Sun-spots in the year 1889, deduced from photographs taken at Greenwich, at Dehra Dûn (India), and in Mauritius. Communicated by the Astronomer Royal.
- Observations of Comet *a* 1890 (Brooks), made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.
- Notes on reflecting telescopes, and on the making of large discs of glass for them. A. A. Common.
- Observations of *Mimas*, 1890. A. A. Common.
- Ephemeris for physical observations of the Moon, 1890 July 1 to December 31. A. Marth.
- The Jovian evection. E. Nevill.
- June 13. The star-places of the Second Melbourne General Catalogue for 1880. A. M. W. Downing.
- On star-correction tables. W. H. Finlay.
- On the variable star U ("Nova") *Grionis*. J. E. Gore.
- On a coming conjunction of a remarkable dark spot

- on *Jupiter* with the red spot, and the relative altitude of these objects. A. Stanley Williams.
- Comparison of the Greenwich Ten-Year Catalogue with the Williamstown right ascensions of polar stars for 1885. Professor T. H. Safford.
- Corrections to the elements of the orbit of *Juno*. A. M. W. Downing.
- On the verification of the constants employed in the *Uranometria Nova Oxoniensis*. Professor C. Pritchard.
- On the computation of the equation of the centre in elliptical orbits of moderate eccentricities. A. Marth.
- A simple solution of Kepler's problem. A. Marth.
- Observations of Comet *a* 1890 (Brooks), made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.
- Note on some variable stars near the cluster 5 M. A. A. Common.
- Note on the scaling of Dr. Spitta's wedge by means of photography. Captain W. de W. Abney.
- Nov. 14. On the real and apparent variations of the latitude of Greenwich. Professor F. Folie.
- On an electrical control for driving clocks. H. C. Russell.
- On the correction of micrometric measures for refraction. H. Jacoby.
- On a possible cause for lunar libration other than an ellipsoidal figure. S. E. Peal.
- Observations of Comet *a* 1890 (Brooks), made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.
- The red spot on *Jupiter*. J. E. Keeler.
- Two auxiliary tables for the solution of Kepler's problem. A. Marth.
- Ephemerides of the satellites of *Saturn*, 1890-91. A. Marth.
- Ephemeris of the satellite of *Neptune*, 1890-91. A. Marth.
- Spectroscopic notes and queries. Rev. A. L. Cortie.
- Observations of the spectra of Sun-spots in the region B-D, made at the Stonyhurst College Observatory in the years 1882-89. Rev. A. L. Cortie.
- On the orbit of 99 *Herculis*=Alvan Clark 15. J. E. Gore.
- Note on stationary or long-enduring meteor radiants. W. H. S. Monck.
- On some celestial photographs recently taken at Sydney Observatory (with appendix). H. C. Russell.
- Observations of the variable star R *Corinæ*, from November 1886 to June 1890. John Tebbutt.

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Observations of comets made at the Orwell Park Observatory in the years 1889-90. J. I. Plummer.
 Preliminary note on the duplicity of α *Lyræ*. A. Fowler.

On the variation of the spectra of R *Coronæ* and R *Scuti*, and on the spectrum of R *Aurigæ* and R *Andromedæ*. Rev. T. E. Espin.

Some experiments relating to the photometric comparison of points of light with objects of sensible area. E. J. Spitta.

Note on the spot-groups of 1888. E. W. Maunder.

On a mechanical method of describing a parabolic curve. R. Inwards.

Comparative photographs of the high Sun and low Sun visible spectra, with notes on the means of photographing the red end of the spectrum. F. McClean.

Photograph of the A line in the solar spectrum. G. Higgs.

Note on the spot-group of 1890 August 25-September 5. E. W. Maunder.

Observations of the solar eclipse of 1890 June 16-17, made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

Dec. 12. Note on some celestial photographs taken at the Sydney Observatory. H. C. Russell.

New nebulae. W. F. Denning.

Note on Hind's variable nebula in *Taurus*. S. W. Burnham.

Ephemerides of the satellites of *Saturn*, 1890-91 (concluded). A. Marth.

Elements and ephemeris of Zona's comet. J. R. Hind.

1891.

Jan. 9. Observations of the planets *Victoria* and *Sappho* made with the meridian-circle at Dunsink. A. A. Rømbaut.

Remarks on Mr. Fowler's paper on the duplicity of α *Lyræ*. Professor H. C. Vogel.

The proper motion of H 1968. S. W. Burnham.

Photographic evidence of variability in the nucleus of the great nebula in *Andromeda*. Isaac Roberts.

Mr. Roberts's new Observatory on Crowborough Hill, Sussex. Isaac Roberts.

A theory of the cause of gravitation founded upon the dynamical theory of heat. J. G. Vine.

A list of published lunar sketches and photographs, arranged according to the Sun's position. A. Marth.

Spectroscopic results for the motions of stars in the

line of sight, obtained at the Royal Observatory, Greenwich, in the year 1890. No. XIV. Communicated by the Astronomer Royal.

Note on the recent determination of the longitude of Paris. H. H. Turner.

A comparison between the Greenwich lunar observations, 1887, and Hansen's Tables, uncorrected and corrected, for the change in the unit of mean time introduced in the year 1864, and with Hansen's Tables as modified by Professor Newcomb and Mr. Stone. E. J. Stone.